

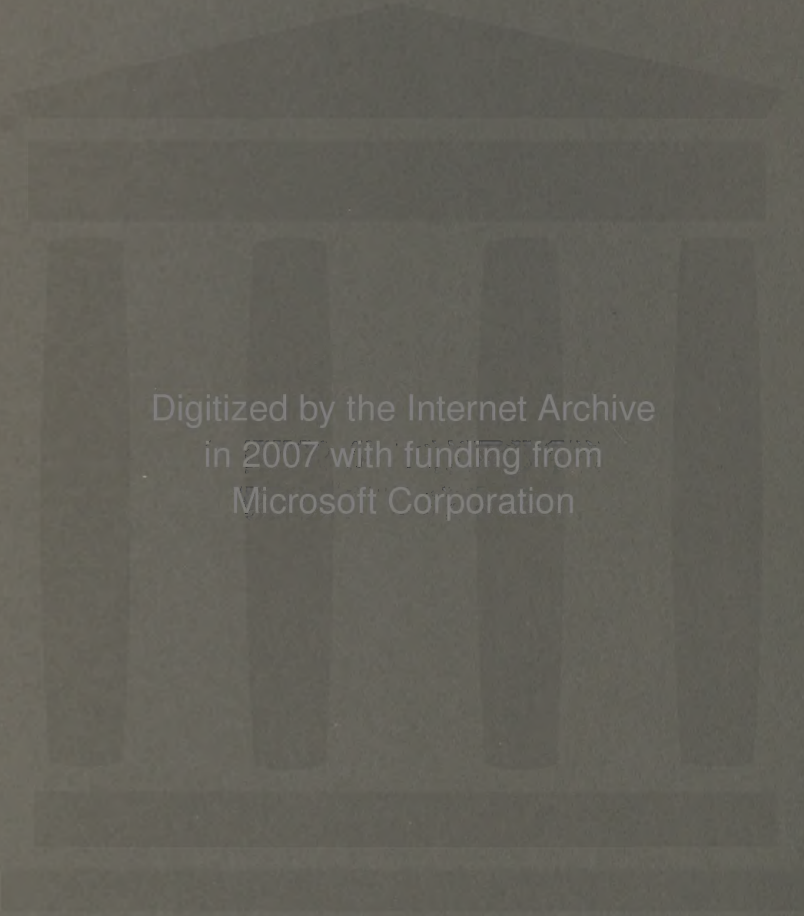
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Ottawa. Board
of Trade
Circular letter
on state-owned cables

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CIRCULAR LETTER

FROM THE

OTTAWA BOARD OF TRADE

ON

STATE-OWNED CABLES

AND AN

IMPERIAL POSTAL CABLE SERVICE

FOR THE

EMPIRE.

With Appendices on the same Subjects
by Sir Sandford Fleming.

OTTAWA, CANADA, JUNE, 1901.

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CIRCULAR LETTER

(Addressed to various bodies representing Trade and Commerce throughout the Empire.)

FROM

The Board of Trade of the City of Ottawa, Canada.

OTTAWA, 20TH JUNE, 1901.

On behalf of the Ottawa Board of Trade, the President and Council have the honour to submit the following remarks, together with the appendices hereto, on the movement to secure the cheapest, the speediest, the freest, and the most effective means of intercourse between all the King's subjects throughout His vast empire.

Representing Trade and Commerce in the Capital of Canada, the Ottawa Board of Trade feels it a public duty incumbent on them to take this means of expressing the conviction they have reached that all the British possessions throughout the world should be directly connected by State-owned telegraph cables under the control of the Post Office.

Such a scheme is regarded by members of the Board as an effective means of fostering trade and stimulating commercial activity, at the same time constituting a bond of Imperial unity of inestimable value.

The proposal requires not only that the connecting trans-marine cables should be under Government control, but likewise that the land telegraphs of the several British possessions

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should be State-owned. The land telegraphs of the United Kingdom, New Zealand, the Australian States, India and South Africa, are already nationalized and administered by the Post Office. Canada is the only exception; but the transfer of the Canadian telegraph lines to the Post Office, together with the laying of a State-owned cable across the Atlantic, is we are informed under the consideration of the Government, and it may be assumed that Canada will not long remain the only country within the Empire where the telegraph system is not, in the public interests, controlled by the State

More than a year ago the scheme of world encircling telegraphs was earnestly considered by this Board, and resolutions were then passed pointing out the necessity for establishing the Pacific Cable as the initial link in such a system of State-owned Cables.

It is a matter of great gratification to the Board to know that the Pacific Cable is now being established, under a joint agreement between the Home Government and the Governments of Canada, New South Wales, Victoria, Queensland and New Zealand, and that there is every prospect of Canada being connected with the United Kingdom at an early date by a State-owned trans-Atlantic Cable. With these works completed, and the Canadian land lines nationalized, the whole distance from England to the shores of the Indian Ocean, say at Perth, the capital of Western Australia, will be covered by a series of Cables and land telegraphs under State control. Perth is near the 116th meridian east, while it is 244 degrees of longitude westerly from London. Reckoning by meridians of longitude, therefore, two-thirds of the Globe will be girdled by a State-owned telegraph service, so soon as the Pacific cable and Canadian lines associated therewith are established as national works.

The necessity for connecting India and other British possessions in Asia with the Imperial system of telegraphy must however be recognized. On reference to the papers appended it will be found that the Imperial scheme of cables to traverse the Indian and At-

lantic oceans between Perth and London, embraces the following works, viz :

1. Cable from Western Australia via Cocos Island and Mauritius to South Africa, with branches to India and Singapore.—9,100 miles.
2. Cable from South Africa via Ascension and Barbadoes to Bermuda, thence to Canada and the United Kingdom—6,600 miles.

These two sections together make 15,700 nautical miles, while the distance from London to Perth by the Canadian route is about the same, the actual distance being a few hundred miles less. Thus it will be seen that taking into account branch cables to connect all the British possessions, half the whole work is already or will shortly be accomplished.

Since the projected Imperial Postal Cable service was formally submitted to the Secretary of State for the Colonies in 1898, certain telegraph companies have been permitted to lay private cables on the sections east and west of South Africa ; it may however be assumed that in a matter which has been correctly described as of transcendent importance to the British people everywhere, care has been, taken by those acting for the State, to reserve the right to expropriate these cables, whenever in the public interests they may be required.

The papers appended set forth the scheme in detail and furnish ample explanations on all essential points. These documents contain the matured judgment of Sir Sandford Fleming, a member of the Board, who has given more attention to the subject than any other man, and in whose views this Board entirely concurs. In one of these appendices it is pointed out that it was largely owing to the action and influence of the Chambers of Commerce of the United Kingdom that the Postal Telegraph Service was introduced thirty years ago in the Mother Country. Similarly we believe it to be in the

power of the various bodies representing Trade and Commerce throughout the Empire to influence the universal adoption of the Imperial Postal Cable Service. It is with that object in view that this appeal is made. We respectfully and earnestly invite the aid and co-operation of all such bodies in bringing to completion "the crowning development of the British Post Office."

In the name and by the authority of the Board of Trade of the Capital of the Dominion of Canada, we ask all concerned in this Imperial movement, to take such action as may tend most speedily to nationalize the telegraph system, by land and sea, of the whole Empire.

We have the honour to be,

Your Obedient Servants,



JOHN COATES,
President.

CECIL BETHUNE,
Secretary.

APPENDICES.

1. Post Office Reforms in the Victorian Era, and the development of an Imperial Cable Service. Read before the Royal Society of Canada May 22, 1901.
2. A State-Owned System of Electric Cables for the Empire. Letter to the Right Honourable Joseph Chamberlain, Colonial Secretary, Oct. 28, 1898.
3. State-Owned Telegraphs for the Empire. Letter to the Right Honourable the Earl of Hopetoun, Governor-General of Australia, Dec. 3rd, 1900.
4. A State-Owned Telegraph Service Girdling the Globe. Letter to the Hon. Wm. Mulock, Postmaster General of Canada, January 1st, 1901.
5. Proposal to Nationalize the Telegraph Service of the Empire. Letter to Lieut.-Colonel Denison, President of the British Empire League in Canada, Feb. 13th, 1901.
6. A Pan-Brittanica Cable Service. Resolution of the British Empire League in Canada at the Annual Meeting, Feb. 13th, 1901.

POST OFFICE REFORMS IN THE VICTORIAN ERA : AND
THE DEVELOPMENT OF AN IMPERIAL
CABLE SERVICE.*

Read before the Royal Society of Canada May 22nd, 1901,
BY SIR SANDFORD FLEMING.

At an early date the postal service everywhere was of the most primitive character. The English record points out that at one time foot carriers were employed to convey the mails, and that they travelled at the rate of 16 or 18 miles a day. Frequently two months elapsed before any answer to a letter could be received in London from Scotland or Ireland.

Great Britain has taken a leading part in post office reform. This fact is universally recognized. When our great and good Queen came to the throne, the service was still deplorably unsatisfactory. It is now 64 years since a process of transformation commenced which has been marked by distinct stages of development, each stage opening a new chapter in the history of the Post Office service. The last chapter, yet unwritten, may be regarded as having been opened on the closing day of the century, when the contract for establishing the Pacific Cable was signed on behalf of the Home Government and the Governments of Canada, New South Wales, Victoria, Queensland and New Zealand.

The British Post Office to-day is admirably administered, and when the final development shall have been consummated, it will in all probability take rank as one of the most perfect and most beneficent of all human organizations.

In referring briefly to the development of the Post Office, it will be convenient to allude to some of its functions and operations in connection with the following reforms :

1. The adoption of penny postage in the United Kingdom.
2. The adoption of the postal telegraph system in the United Kingdom.
3. The adoption of penny postage throughout the Empire.
4. The adoption of a Postal Cable Service between all parts of the Empire.

All these great advances are associated with the Victorian Era. The first took its origin in the year when the young Princess

*Vide Empire Review for July.

Victoria ascended the throne, and the last was initiated a few weeks before, when as Queen Empress, she passed away. It remains for King Edward VII. to see completed, a service of transcendent importance to the vast inheritance bequeathed to him by his illustrious Mother.

THE FIRST REFORM.

The annals of the Post Office show, that, before the reign of Queen Victoria, postal services were generally defective; that the postal rates were most burdensome; that the charges on letters varied according to the distance transmitted and were in consequence exceedingly inconvenient; that in some instances the postage exceeded the rate now levied more than twenty fold, and that it averaged nine times the present charge.

In 1837 a remarkable pamphlet appeared under the title "Post Office Reform, its importance and practicability." The author, Mr. (afterwards Sir) Rowland Hill had carefully studied all the existing conditions, and in the work mentioned, he made public his conclusions, and pointed out the benefits which would result if certain radical changes which he recommended were carried out. The principal change proposed was to reduce the postage to a uniform rate of one penny per letter, without regard to distance within the limits of the United Kingdom, and the author did not hesitate to declare that with this change there would be at least a fivefold increase in correspondence. His proposal was ridiculed as wild and visionary, and encountered the honest opposition of many high in official life. Those connected with the Post Office, from the Post Master General down, were especially pronounced in their hostility. To the last they persisted in predicting complete failure as the certain result of the proposed reform.

Sir Rowland Hill, however, in submitting such a bold proposal had made quite sure of his ground. His conception of a uniform penny postage was the outcome of a thorough knowledge of the subject which he had been at pains to acquire. It was not a happy thought merely, but the result of laborious investigations, and he had satisfied himself as to the practicability of the proposal before announcing it to the public.

Its convenience was obvious, in view of the fact that there were, on inland letters alone, from twenty to thirty different rates of postage. Moreover, he was able to shew that the reduction to a uniform charge of one penny per letter would not permanently interfere with the revenue, although for a few years it would diminish receipts. He foresaw that the expansion of business and the enormous increase in correspondence would speedily cause the revenue to recover itself.

The progress of public opinion in favour of the reform was so rapid that Parliament took up the matter before the end of 1837, and appointed a committee of enquiry, which sat throughout the session of 1838 and examined many witnesses. The result of the investigation is well known, but it is not perhaps so well known that the resolution establishing the vital principle of the reform was carried, only, by the casting vote of the chairman, Mr. Robert Wallace, member for Greenock. The publication of the report of the committee, embodying the arguments in favour of penny postage, gave an extraordinary impetus to the demand for the proposed measure, and but a short time elapsed before Parliament granted one of the greatest boons ever conferred on a people.

Penny postage came into force throughout the United Kingdom in January, 1840, and before many years had passed, all the evil forebodings respecting the loss of revenue were falsified. The benefits resulting from the change were conspicuous, and were not confined to the United Kingdom. Six years later, a public subscription was raised throughout the country in recognition of Sir Rowland Hill's services, and the Knighthood bestowed on him by his Sovereign was another attestation of his merit. At a later day, Lord Palmerston, after pointing out in the House of Commons, the advantages which penny postage had bestowed on the nation, concluded by moving "that the sum of £20,000 sterling be granted to Her Majesty as a provision for Sir Rowland Hill," a man whose name should be remembered in every country, for every country has benefited, and will continue to benefit from his thoughtful labours.

Hariet Martineau describes the great postal reformer as "a man of slow and hesitating speech, but so accurate, so earnest, so irrefragable in his facts, so wise and benevolent in his intentions, and so well timed in his scheme, that success was certain from the beginning."

By the year 1854, the postal improvements resulting from Sir Rowland Hill's initiative had been adopted more or less completely in nearly every civilized country. Speaking in the United States Senate in 1870, Charles Sumner referred to Sir Rowland Hill as:—"The son of a schoolmaster, of simple life, and without any connection with the Post Office, he conceived the idea of radical reform—he became the inventor or author of cheap postage—there are few more worthy of honour; and since what is done for one country, becomes the common property of the world, he belongs to the world's benefactors."

In 1897, the year of Her late Majesty's Diamond Jubilee, the British Post Office gave a new significance to the expression "penny postage" by increasing the weight of letters for which a penny suffices to pay the carriage within the United Kingdom, from one

ounce to four ounces. No such letter rate exists in any other country in the world.

THE SECOND REFORM.

The Queen had been on the throne ten years, when a new agency of marvellous capabilities presented itself as a means of human intercourse and led eventually to the second reform.

The electric telegraph had no practical existence before 1847, when through the enterprise of private companies, it began to be introduced as a means of communication. Telegraph lines were soon afterwards established between many of the principal cities of the United Kingdom by joint stock companies. These ventures proved most profitable to the promoters, but in course of time complaints were made of exorbitant charges, of vexatious delays in the transmission of messages, and likewise that only important cities enjoyed the advantages of telegraphic communications. After a number of years, the conclusion was arrived at that the control of the electric telegraph lines by the Government would be attended with advantages to the State and the general public; accordingly, it was proposed to expropriate all the private lines, and give to the country postal telegraph service under State control.

As early as 1852, suggestions were made that the Post Office should manage the telegraph system. Among others, Captain Galton prepared a paper on the subject. A few years later, Mr. Frederick Baines drew up an elaborate memorandum in which he advocated the schemes of a Government system of telegraphs, the wires to extend to every Post Office in England, Ireland and Scotland, and the management to be controlled by the Post Office Department. He laid his views before the Duke of Argyle, then Post Master General, and afterwards before Lord Stanley of Alderley, who strongly favoured the idea. The names of Mr. Ricardo and Mr. Scudamore also appear in the record as taking a prominent part in the introduction of the scheme, although Mr. Scudamore disclaimed any originality for the proposal so far as the British Post Office was concerned; government telegraphs being already in operation in several other countries.

To the Chamber of Commerce of Edinburgh belongs, very largely, the credit of creating public demand for the transfer of the services from private companies to the State, and Sir George Harrisson, the convener of that body, was the moving spirit.

It was shown conclusively that the telegraph service, as managed by the companies, maintained excessive charges, was dilatory and otherwise unsatisfactory in its operation, left many towns and districts wholly unprovided for and placed special difficulties in the way of the newspaper press, which had, in the interests of the public, so strong a claim to special facilities. The Edinburgh

Chamber of Commerce unanimously insisted upon a great reduction in charges, and suggested a uniform six penny rate, and their proposal was endorsed by other Chambers of Commerce throughout the United Kingdom.

Parliament was memorialised, and laborious Parliamentary enquiries were instituted; until at length it was decided to proceed with a scheme of Government Postal Telegraphs attached to the Post Office. In 1868, an act was passed, to enable the Post-Master-General to acquire and work all the electric telegraph lines then existing, or thereafter to be established, and two years later, the Postal Telegraph Service came into operation.

Under State ownership great benefits have resulted. The exorbitant charges on messages, previously exacted by the companies, were at once greatly reduced, and the lines have been extended to towns and even small villages which, until the transfer, had no telegraph service. Moreover, the charges were no longer according to mileage, but were reduced to a uniform rate of one half-penny a word, and for that small charge, a telegram may be sent from any Post Office to any other within the limits of the United Kingdom. The Government administration has proved in the highest degree satisfactory, and the business has increased enormously.

THE THIRD REFORM.

Imperial penny postage is a natural expansion of the first reform, from the British Islands to the British Empire. Its most ardent advocate was Mr. Henniker Heaton, Member for Canterbury. Early in 1887, he addressed a series of closely reasoned letters to the Post Master General, proposing that the ordinary postal rate for the carriage of a letter between any two parts of British Empire should be one penny. He contended that such a service would on the whole be self-supporting, while it would be a practical means of establishing and maintaining close and cordial relations between the Mother Country and her distant children. Mr. Heaton submitted a statement containing his various arguments to the Colonial Conference of 1887, and again and again appealed to Parliament to consider the proposal in view of his contention that it would powerfully tend to solidify the Empire.

It took some time for the arguments advanced to bear fruit. At length however in 1897, a correspondence passed between the British Post Office and the Postal departments of Canada and the several colonies, upon the question of reducing the rate from two pence half-penny (5 cents) to two pence (or four cents.) At a certain stage in this correspondence, the Post Master General of Canada (Mr. Mulock) announced the intention of his department to reduce the rate on letters from Canada to Great Britain, and to all

the colonies, to the Canadian domestic rate, which was then three cents per ounce. Mr. Mulock gave his reasons why the reduction should take place, and proposed that it should take effect on the first of January 1898. The British Post Office authorities were unwilling to assent to the proposal until the question of rates between the several parts of the Empire should be fully considered and, in consequence, action on the part of Canada was postponed.

In the summer of 1898, a conference was held in London to discuss the matter, when the principle of penny postage for the British Empire was accepted, and on the 25th of the following December, penny postage came into operation between The United Kingdom, India, Canada, Newfoundland and certain Crown Colonies.

The principle has since been generally adopted in the postal service of other portions of the Empire.

We have the authority of the Duke of Norfolk, late Post Master General of the Home Government, for stating that the establishment of Imperial penny postage was largely due to the progressive spirit of Canada. On a public occasion, when the Duke was being congratulated on the successful accomplishment of the movement, he frankly conceded "that it would be unfair if he did not at once shift the credit from his own shoulders to those of his brother Post Master General of Canada." In an equally generous spirit, Mr. Henniker Heaton, by letter expressed to Sir Wilfred Laurier, the Canadian first Minister, his appreciation of the enlightened policy of the Canadian Government. "To you and your colleagues," he said, "and above all, to Mr. Mulock, Post Master General, we are indebted, not only in these historic Islands, but in every land inhabited or ruled by men who are free subjects of Queen Victoria, for the realization of Imperial penny postage."

THE FOURTH REFORM.

While the third reform is the expansion of the first, the fourth reform is the expansion of the second. A state-owned trans-marine Cable Service, encircling the globe, may be regarded as the complement of the three preceding reforms. Not only is it rendered necessary by the evolution of the Empire and the enormous expansion of British interests during the Victorian Era, but it is made possible by a number of contributing circumstances which have arisen during the same period.

In the tenth year of Her Majesty's reign, electricity was first employed as a means of telegraphing. The London Journal of Botany for that year, 1847, refers to the gum of a new plant from the Malay Peninsular, which had found its way to England, and states that the plant itself had then been named by Sir Joseph Hooker, the famous director of the Royal Gardens at Kew. The new found gum, gutta-percha, was soon afterwards discovered to have an ex-

traordinary degree of electrical non-conductivity, and on that account it has proved indispensable in the manufacture of sub-marine telegraph cables. Since its introduction and the laying of the first Atlantic cable, about 30,000 tons of this gum have been used for electrical purposes. As every effort to find a substitute for gutta-percha has so far failed, it is clear, that, but for the discovery of this substance, the immense progress that has taken place in ocean telegraphy would have been impossible. The development of ocean steamships may be instanced as another contributing cause. Before the Queen ascended the throne, there were no steamships which could have been employed in cable laying. Even if it had been possible to manufacture cables, it would have been impossible without steamships to stretch them across the ocean. A sailing ship, tacking in adverse winds, or driven out of her course by storms, would have been ill-suited for cable laying.

As in the case of the land telegraphs of the United Kingdom, we are indebted in the first place, to the enterprise of private companies for the establishment of ocean cables. Some of the cable companies have been assisted in their enterprises by liberal government subsidies, and the companies so assisted, such as those connecting Great Britain with Australia, have met with rich returns. Having regard solely to the public interests, it has long been in contemplation to establish a cable across the Pacific, so as to connect Australia with the Mother Country by way of Canada, and to retain the new cable under the direct control of the State so as to render it in the highest degree serviceable. This proposal was strongly advocated at the Colonial Conferences of 1887 and 1894, and on other occasions. It has, however, been persistently opposed by the allied cable companies, who have left nothing undone during the fourteen intervening years to prevent its realization.

It is not to be regretted that private enterprise should have been richly rewarded as in this instance, but other considerations present themselves. The great object of companies is to earn large profits and pay to shareholders high dividends: but the policy of maintaining a profitable monopoly is not always compatible with great public needs. In the present case, the progress of the Empire and the requirements of the British people have far outstripped the narrow policy which best suits private companies, and precisely as in 1870, when it became necessary for the Government to assume possession of the land lines of the United Kingdom, it has now become a matter of general expediency for the State to own and control the telegraph cables between all its possessions. There has been a prolonged struggle between public and private interests, but at length the public interests have triumphed. The principle of State ownership and State control of sub-marine cables was formally confirmed on December 31st, 1900, when the contract for laying the Pacific cable was signed.

This act, the signing of the Pacific Cable contract, simple and unpretending as it may seem, was really a greater step towards the unity of the Empire than the most splendid conquest. As an act of partnership between six Governments it is far reaching in its effects, and may be regarded as the forging of the key to the solution of the great Imperial problem which the new century presents to us. It is important that we should grasp the magnitude of this problem. We must fully realize that the Empire is no longer limited to a group of comparatively small islands on the western fringe of Europe, which daughter nations are proud to designate their Mother Country. The Empire of the twentieth century is to be found in five continents; it comprises vast territories in both hemispheres; and its people every where cherish common sentiments, sympathies and aspirations. Being separated by wide seas, they require the best means of mutual intercourse. For general security and purposes of state, no less than for the operations of trade, and for social requirements, they demand the freest use of the most perfect means of communication known.

The improvement of the mail service by the adoption of universal penny postage was a wise Imperial measure, but in view of geographical conditions the mail service alone is inadequate. The electric telegraph can meet the conditions, and it is the only agency that can do so; but it must not be restricted by the limitations imposed by companies, whose main object is private profit. This great agency of civilization has been given to man for nobler purposes. A little reflection will show that brought under state control, it is destined to revolutionize the world's correspondence. By carrying the postal telegraph service to every Post Office in every British possession around the Globe, our people, so widely sundered geographically, will telegraphically and practically be drawn into near neighbourhood.

This marvellous result is rendered certain by two remarkable facts. First, the fact that telegraph messages are instantaneously transmitted, gives them an immense advantage over the post. Take a single illustration. If a correspondent in Canada writes to a friend in New Zealand, he could not receive an answer for eight or ten weeks, while with the telegraph an answer would be due in a few hours. Secondly, distance does not appreciably add to the cost of sending a message by telegraph. It has been elsewhere pointed out that there is practically no greater outlay incurred in transmitting long distance than short distance messages. In the case of postal matter, the expenditure is constant for every hour, and continuous for every mile; whereas in telegraphy, there is an entire absence of such expenditure. With a telegraph properly

established and equipped, messages may be transmitted 100 or 1000 miles at no greater cost than one mile.

These striking facts give the strongest possible grounds for the belief that, with the cable and telegraph service nationalised and extended, an extremely low uniform charge,—a parallel to penny postage—by Imperial telegraphy, will be found possible. Would anything else tend to develope in so high a degree a common feeling of kinship among our people? Statesmen desirous of taking practical steps towards consolidating the Empire, will now find the way open for their efforts by furthering this the crowning development of the British Post Office.

No. 2.

A STATE-OWNED SYSTEM OF ELECTRIC CABLES FOR THE EMPIRE.

*Letter to the Right Honourable Joseph Chamberlain, Secretary of
State for the Colonies. By Sir Sandford Fleming.*

OTTAWA, OCTOBER 28TH, 1898.

The Right Honourable

JOSEPH CHAMBERLAIN,

Secretary of State for the Colonies.

SIR:—

I had the honour, on the 28th of December of last year, to address Sir Wilfrid Laurier respecting the proposal to establish a state-owned Pacific cable. Circumstances have since arisen which impel me to ask permission to address you on the subject of a state-owned system of cables for the British Empire.

In the remarks which follow, the subject will be discussed on its merits. I venture to think that the arguments advanced will make it clear that such a service is extremely desirable and is fast becoming a necessity. The telegraph is an essential ally of commerce and is indispensable to the full and satisfactory development of trade and shipping. The trans-Pacific steamship lines which have been established are heavily handicapped by the absence of any direct means of telegraphy between the ports with which trade is carried on. The Pacific cable would serve the purposes of trade between Australasia and Canada, but these countries are debarred from establishing independent telegraphic connection with Hong Kong, the terminal port of some of the steamship lines. Under an agreement, dated 28th October, 1893, the Eastern Extension Telegraph Company strengthened its monopoly by having Canada and the Australasian Colonies telegraphically excluded from Hong Kong and forbidden to lay, or assist in laying, any new cable to that port for a period which does not expire until twenty years from the present date.

There remains only one way of gaining telegraphic connection with Hong Kong freed from exacting charges, and that is through the Home Government. In granting to the Eastern Extension Company exclusive privileges, Lord Ripon, then Colonial Secretary, reserved to Her majesty's Government the option to take possession of the cable between Singapore, Labuan and Hong Kong, by giving twelve months' notice and paying the Company £300,000.

My letter of December last to Sir Wilfrid Laurier (copy inclosed) sets forth the position and the attitude, to Canada and the Australasian Colonies, of the Eastern Extension Telegraph Company. The proposal now submitted would undoubtedly interfere with the rich monopoly which that company enjoys, and to some extent, and for some time diminish its profits; but I venture to hold that no private company, however rich and influential, should be allowed to stand in the way when great Imperial interests are at stake. It must be borne in mind too, that telegraphy is one of the most astonishing results of science, and that the facilities which it offers, if not shackled by hindrances, may be rendered of greater and greater value to the human race.

The advantages of cable connections and low charges increase with distance in an accelerated ratio. It is impossible, therefore, to set a limit to the commercial, social and political benefits which would result to the empire from a state-controlled cable service reaching every British possession. In the following remarks I point out that the Pacific cable, established as now proposed, will prove to be the key to such a service, and practically its forerunner.

BRITISH EMPIRE CABLE SERVICE.

The action recently taken in London in adopting the principle of cheap imperial postage suggests that the time has arrived when the expediency of establishing a complete telegraph cable system throughout the empire may be considered on its merits. The advantages which will inevitably follow the adoption of universal penny postage appear to be generally recognized, and I venture to think the public mind will be prepared to entertain favourably another proposal not less important. It is not necessary in the least to undervalue cheap postage or detract from its immense importance in order to show that a cheap telegraph service on a comprehensive scale is easily attainable, and that it would prove an effective means of speedy communication for an empire such as ours.

The transmission of letters has always been a function of the government; indeed, it has been wisely held throughout the civilized world that the postal service should be controlled by the state. The electric telegraph is a comparatively modern introduction. In the Mother Country private companies were the first to establish lines of telegraph, but in 1868 it was found to be in the public interest to have them taken over by the State and placed under the Post Office Department.

A committee of enquiry had reported to Parliament: 'That the telegraph service as managed by companies, (1) maintained excessive charges, (2) occasioned frequent and vexatious delays in the transmission of messages, and inaccuracies in sending them, (3) left a large number of important towns and districts wholly unprovided for, and (4) placed special difficulties in the way of that newspaper press which

had in the interest of the public a claim, so just and so obvious, to special facilities.' The transfer was effected in 1870. Changes and improvements were immediately made; the telegraph service, previously confined to lines connecting great cities where business was lucrative, was extended to many towns and districts previously neglected, and, notwithstanding the fact that the charges on messages were greatly reduced, the business developed to such an extent that the receipts progressively increased. Before the transfer it cost about six shillings to send an ordinary message from London to Scotland or Ireland. The rate was reduced to a shilling, and subsequently to six pence (the rate at present charged), and for that sum a telegram can be sent from any one station to any other station within the limits of the United Kingdom, without regard to distance.

It was early discovered by every country in Europe that so efficient a servant to trade and commerce, so important an aid to the State itself, should become a national institution. France, Austria, Prussia, Russia, Sardinia, Italy, Spain, Portugal and Belgium each established a State telegraph system, and, as in Great Britain, experience has shown that they have done this, not only with advantage to the various administrative necessities, but with benefit to the public at large.

Such being the unanimous conclusion, is not the application of the principle of State ownership on a larger scale than hitherto attempted a fit subject for inquiry? Is it not desirable and expedient that the whole British Empire should have a state-controlled cable system.

The conditions of the empire are totally different to what they were some years back. When Her Majesty ascended the throne there was not a single mile of electric telegraph anywhere. There was not an iron ship of any class afloat, and mail steamships were practically unknown. From that period the conditions have been continually changing and the process of growth and development still goes on. True, change has met with resistance from individuals and companies and classes, but resist it who may, the law of development follows its steady course and continually makes demands on science and skill to meet the ever changing conditions. We are living in an age of transformation; the spirit of discovery and enterprise, of invention and achievement, has extended and expanded the British Empire from the small islands on the coast of Europe to new territories, continental in extent, in both hemispheres. The development of the mercantile marine has carried the flag of our country over every mile of sea to meridians far distant from the mother land. In these distant territories, communities have established themselves under the protection of that flag. They have drawn riches from the forest, the soil and the mine. They have caused noble cities to spring up rivalling in the splendour of their streets and buildings the finest

cities of the old world. These young nations, full of hope and vigour, have made progress in every direction; they are imbued with lofty aspirations, and their most ardent desire is to give their energy and strength to the building up of a greater British Empire, on the firm foundation of common interest and common sentiment.

At an earlier period of the world's history it would have been difficult to conceive the possibility of any lasting political union between countries so widely separated by intervening seas. The problem is, however, being solved, not by old methods, but by the application of wise principles of government, aided in a wonderful way by the highest resources of modern science. Steam has made the separating oceans no longer barriers, but the general medium of union. Electricity has furnished the means by which the British people in all parts of the globe may exchange thought as freely as those within speaking distance. These twin agencies of civilization are pregnant with stupendous possibilities. Already the one, as the prime factor in sea-carriage, has rendered universal penny postage possible. The other has made it equally possible to bring the British people, so widely sundered geographically, within the same neighborhood telegraphically.

Imperial penny postage will have far-reaching consequences; it is undoubtedly a great onward movement in the career of civilization, and in the development of wider national sympathy and sentiment. But great as are the benefits to follow the adoption of universal cheap postage, the first result, and not the least, will be to make plain that a postal service, however cheap and comprehensive, is in itself insufficient for the increasing daily needs of the now widely-distributed British people. It will be seen that in addition to an ocean penny postal service, the circumstances of our world wide empire demand a cheap ocean cable service, extending to every possession of Her Majesty.

The carriage of letters at any known speed consumes time, and the length of time consumed depends on the distance traversed. The telegraph, on the other hand, practically annihilates space, and in this one respect has immeasurably the advantage over the ordinary postal service, especially in the case of correspondents who are separated by the greatest distances.

We can as yet but faintly appreciate the extent to which the telegraph may be employed, because its use heretofore has been restricted, on long-distance messages, by almost prohibitory charges. If messages be exchanged between places not far apart, let us say between London and Edinburgh, or Toronto and Montreal, the gain in time by the use of the telegraph is inconsiderable. But if the points of connection be far separated, such as London and Melbourne, or Ottawa and Cape Town, the comparison between a postal and a telegraph service brings out the distinct value of the latter. In either of

the cases last mentioned, while it would require the lapse of eight or ten weeks to obtain an answer to a letter by post, if the telegraph be employed, a reply may be returned the next day, or even the same day.

Existing long-distance cables are little used by the general public; it may be said, not at all except in emergencies. They are used in connection with commerce, the growing needs of which demand more and more the employment of the telegraph, but owing to the high charges exacted its use is limited to business which would suffer by delay. These cables are in the hands of private companies striving chiefly to earn large dividends, and who adopt the policy of charging high rates, in consequence of which trade and commerce are unduly taxed, and their free development retarded. Were the cables owned by the state, large profits would not be the main object, and precisely as in the case of the land lines of the United Kingdom, it would be possible greatly to lower rates and thus remove restrictions and bring the telegraph service within reach of many now debarred from using it.

When the government assumed control of the inland telegraphs of the United Kingdom it was found possible greatly to reduce charges. In 1869, the year before the transfer, less than seven million messages were carried. At the transfer the rate was reduced to one shilling per message; the traffic immediately increased nearly 50 per cent., and continued increasing until, in the tenth year, twenty-nine million messages were transmitted, with a surplus of revenue over expenditure of £354,060. In another decade the total annual business equalled ninety-four millions, the operations still resulting in a surplus of £251,806 although the charge for a message had been meanwhile reduced from one shilling to sixpence. It is indisputable that high charges restrict the utility of sea cables as well as of land lines, while low charges have the opposite effect. A few years ago the tariff of charges between Australia and London was nine shillings and fourpence per word. The proposal to establish the Pacific cable and the discussion which followed, led to the cheapening of the rate to four shillings and ninepence per word. In 1890, the year before the rates were lowered, the gross business consisted of 827,278 words. Last year (1897) it had increased to 2,349,901 words. In 1890, with high charges, the revenue was £331,468. In 1897, with reduced charges, the revenue was £567,852, or £236,384 in excess of 1890, when the highest rates were exacted.

The utility of the telegraph may be measured by the time gained over the post, and the success of the telegraph service of the United Kingdom must be accepted as convincing evidence of its utility and value, for the gain in time is, in this case, measured by hours only. Its striking success in this instance may be largely owing to State control, but whatever the cause, it is obvious that if, under similar

conditions, weeks were gained instead of hours, the utility of the telegraph would be proportionately increased and its value as a means of communication correspondingly enhanced. There is another immense advantage, not generally known to the public, which can be claimed for telegraphy: It is the fact that, within certain limitations the actual cost of transmission is but little affected by distance. While the cost of carrying letters is in proportion to the distance traversed, the same rule does not apply to the electric wire. With a properly equipped telegraph system, the actual expenditure incurred in transmitting a message thousands of miles is practically no greater than in sending it ten miles. Obviously, therefore, the principle of 'penny postage,' that is to say a low uniform charge for all distances, is applicable even more fully to ocean telegraphy than to the imperial postal service. With these considerations before us, a moments reflection leads to the conviction that this wonderful agency—the electric wire—places within our reach if we have the wisdom to accept it, an ideal means of communication for the world-wide British Empire.

Thirty years ago the British Parliament for reasons, the soundness of which experience has fully confirmed, determined that the state should assume control of the inland telegraph system of the United Kingdom. To-day there are incomparably stronger reasons for state control being exercised over a cable system for the whole empire.

The proposal is not altogether new. If the proceedings of the Colonial Conference of 1887 be referred to, it will be found that an imperial telegraph service was fore-shadowed in the discussions. To these I would refer, and especially pages 225 to 228, 339 to 341, and 513 to 520. In these discussions the delegates from the Cape of Good Hope, Natal, Australia, New Zealand, Newfoundland and Canada took part. Again, at the Colonial Conference of 1894 the proposal was set forth in some detail, and the advantages of an all-British system of telegraphy around the globe pointed out. On that point I beg leave to direct attention to the proceedings of the Ottawa Conference, and more particularly to pages 88 to 90, inclusive. Likewise to the proceedings of the second Congress of the Chambers of Commerce of the Empire, and more especially to a letter from the Ottawa delegate (July 1, 1892) to the President, Sir John Lubbock.

The proposal to complete the telegraphic circuit of the globe has no doubt suggested itself to many persons. Among those who have written on the subject may be mentioned, Sir Julius Vogel, at one time Postmaster General of New Zealand; the late Mr. F. N. Gisborne, Superintendent of Telegraphs for the Canadian Government; Sir George Baden-Powell, M.P., London; Mr. J. C. Lockley, of Nhill, Australia; and the veteran postal reformer, Mr. Henniker Heaton. At the Cape, Mr. Jan Hendrick Hofmeyer has given the matter his strongest support.

PROJECTED CABLE SYSTEM.

It may be laid down as an essential condition of an imperial cable service, that none of the lines should touch foreign soil, and that they should be placed so as to avoid shallow seas, more especially those seas in proximity to any country likely at any time to prove unfriendly. In describing generally the route which would best comply with these conditions I shall commence at Vancouver for the reason that up to this point telegraphic connection with the imperial centre in London is already assured, without being dependent on any foreign power. First, we have direct telegraphic connection across the Atlantic by a number of cables, and it is a mere question of cost to lay additional trans-Atlantic cables to be state-controlled, whenever they are wanted. Secondly, we have a transcontinental telegraph from the Atlantic coast to Vancouver, extending along the line of the Canadian Pacific Railway, and all practical telegraphers will recognize the great advantage of this position. By having the wires hung within sight of passing trains, the telegraph can be frequently inspected with the greatest possible ease, and faults, when they occur, can speedily be repaired.

Commencing at Vancouver the cable would cross the Pacific to New Zealand and Australia, from Australia the main line would cross the Indian Ocean to South Africa, from South Africa it would traverse the Atlantic to Canada, where it would connect with the trans-Atlantic lines. Such a system of cables would complete the telegraphic circuit of the globe, and would constitute a base for connecting every one of Her Majesty's possessions and naval coaling stations (Gibraltar and Malta excepted) by the most perfect means of conveying intelligence at our disposal. Moreover, the connection would be formed by a system of all-British deep-sea cables in the position where they would be least vulnerable. This Imperial cable system may be considered in three divisions.

(1.) Cables in the Pacific Ocean.

The cable from Vancouver would first find a mid-ocean station at Fanning Island, second at the Fiji islands, third at Norfolk island: at Norfolk island it would bifurcate, one branch extending to New Zealand, the other to the eastern coast of Australia.

There are many islands in the Pacific, some under British, others under foreign flags; in course of time these islands could be served by branches as circumstances may require. The land lines of Australia would complete telegraph connection with the western coast, or it may be deemed expedient to substitute a cable for the land lines over that portion of the interior between Adelaide and King George's sound.

(2.) Cables in the Indian Ocean.

From King George's sound, or other point in Western Australia,

the cable would extend to Cocos island, thence to Mauritius, and thence to Natal or Cape Town, as may be found expedient. Cocos would become an important telegraphic centre; it would be a convenient point for connecting Singapore by a branch cable. Singapore is already in connection with Hong Kong by an all-British cable via Labuan, and Her Majesty's Government can take possession by giving 12 months' notice. India could be reached by a branch from Cocos to Colombo or Trincomalee in Ceylon. At Mauritius a connection would be formed with the existing cable to Seychelles, Aden and Bombay.

(3) *Cables in the Atlantic Ocean.*

In order to avoid the shallow seas along the West coast of Africa, Spain, Portugal and France, it is proposed that the cable should extend from Cape Town to Bermuda, touching at St. Helena, Ascension and Barbados as mid-ocean stations. At Bermuda a connection would be formed with the existing cable to Halifax, and at that point with the Canadian and trans-Atlantic lines, or a cable could be laid from Bermuda direct to England.

Much prominence has been given to a proposal to connect England with the Cape by a line of cable touching at Gibraltar, Sierra Leone or Bathurst, Ascension and St. Helena. I pointed out in my letter of last December to Sir Wilfrid Laurier, that there are great objections to the northern half of that route, as 'the cable, of necessity, would be laid for some distance in shallow seas where it would be exposed to injury from various causes, and where, too, the agent of an unfriendly nation or, indeed, an evil-disposed fisherman, would have it in his power to destroy the cable with ease, totally unobserved. For hundreds of miles it would be exposed to such risks.'

The route now proposed from Ascension to Great Britain is certainly less direct, but the cable would be much less in jeopardy, and to this may be added, the advantage which would result in bringing the West Indian possessions within the Imperial telegraphic circuit.

In order that some estimate may be formed of the cost of such an undertaking, I submit the following approximate distances which each group of cables would require to cover;—

(1.) In the Pacific ocean, from Vancouver to Australia and New Zealand.....		7,150 knots.
(2.) In the Indian ocean, from Western Australia to South Africa—		
Main line.....	6,500	
Branch to Singapore.....	1,100	
“ Colombo.....	1,500	
		———— 9,100 knots.

(3.) In the Atlantic ocean, from South Africa to	
Bermuda	6,600 knots.
	22,850 "

The total distance for which new cables would be required (of which 20,250 knots would be in the main line, and 2,600 knots in branches) may be roughly placed at 23,000 knots, and the cost (including the branch to Hong Kong) between £5,000,000 and £6,000,000 sterling.

I have long advocated the first division of the proposal, the establishment of a cable from Canada to Australasia as a state work. I have felt that it would be the forerunner of an all-British telegraph system embracing the whole empire. As a state undertaking I am satisfied that the Pacific cable would be a complete commercial success, and that so soon as it so proved, the cable extension to South Africa and India would follow.

One advantage peculiar to a globe-encircling system of cables will be apparent, each point touched would be in connection with every other point by two routes extending in opposite directions. This feature is of special value, as it practically constitutes a double connection in each case. The projected system of all-British cables with its branches would thus doubly connect the following fortified and garrisoned coaling stations, namely:—Hong Kong, Singapore, Trincomalee, Colombo, Aden, Cape Town, Simons Bay, St. Helena, Ascension, St. Lucia, Jamaica, Bermuda, Halifax, Esquimalt, King George's Sound and Thursday island. The following 'defended ports' would likewise be connected, viz:—Durban, Karachi, Bombay, Madras, Calcutta, Rangoon, Adelaide, Melbourne, Hobart, Sydney, Newcastle, Brisbane, Townsville, Auckland, Wellington, Lyttletown and Dunedin.

Would it not be in the interest of a great commercial people to have these and all such points in the outer empire connected by a means of communication so perfect as the electric telegraph?—Is it not a matter which vitally concerns every British community around the globe? Is it not in their common interest that they all should be placed in possession of the speediest means of conveying intelligence the one to the other, free from the burden of high charges?

That a state owned Pacific cable is the key to the situation, I am firmly convinced. Exhaustive examinations have proved its entire practicability. Its financial aspect has been minutely investigated by business men of the highest rank. The Canadian Government appointed Lord Strathcona and the Hon. A. G. Jones for this purpose, than whom there are no men with stronger business insight. Their report is in the possession of the government, and it takes the most favourable view of the project. As a State undertaking it would be

self-supporting from the first year of its establishment, and would admit of charges being lowered year by year. That the final outcome of the laying of this cable would be an imperial telegraph service there can be little doubt. I am satisfied that the Pacific cable would prove to be the entering wedge to remove for ever all monopoly in ocean telegraphy, and free the public from excessive charges; that it would be the initial link in a chain of state cables encircling the globe, with branches ramifying wherever the British Empire extends, and that it would be the means of bringing into momentary electric touch every possession of Her Majesty.

In 1837, Rowland Hill, in advocating uniform penny postage for the United Kingdom, pointed out how desirable it would be to have the same low rates as on inland letters charged on letters passing to and from the colonies. This remarkable man concluded with the memorable words: "There is perhaps scarcely any measure which would tend so effectually to remove the obstacles to emigration, and maintain that sympathy between the colonies and the mother country which is the only sure bond of connection, as the proposed reduction on the postage of Colonial letters."

Had Sir Rowland Hill known of the means of instantaneous communication which, since his day, has been placed at our command, he assuredly would have viewed it as the most civilizing agency of the century. He would have seen that while promoting the activities of trade and commerce and improving the well-being of the human race, nothing would more tend to deepen the sympathies of our people and make firm the foundations of the Empire, than the adding to a universal penny postage, the incalculable advantage of a State-controlled ocean telegraph system encircling the globe.

Holding the views which I have ventured to submit, I feel that in the public interest I should greatly err if I failed to seek an opportunity of giving expression to them.

I have the honour, etc.,

SANDFORD FLEMING.

STATE-OWNED TELEGRAPHS FOR THE EMPIRE.

*Letter to His Excellency the Earl of Hopetoun, Governor General of the Commonwealth of Australia. By Sir Sandford Fleming.
Ottawa, December 3, 1900.*

OTTAWA, DECEMBER 3, 1900.

To His Excellency

The Right Honourable THE EARL OF HOPETOUN,
Governor General,
Commonwealth of Australia.

MY LORD:

I had the honour, in October, 1898, to address the Right Honourable Joseph Chamberlain, Secretary of State for the Colonies, on the subject of a state-owned system of cables for the British Empire. My letter was made public and the records of the press show that much interest was awakened and that a singular unanimity of opinion was evinced in favour of the proposal. Since that date events have occurred which, while they have had the effect of diverting attention from the subject, have at the same time in a remarkable degree emphasized its importance, especially to Australasia. I venture to think, therefore, that no time could be more opportune for its consideration than on the occurrence of the inauguration of the new Commonwealth.

In asking Your Excellency to be good enough to bring the remarks which follow before the government of the commonwealth, I am unable to claim that I hold any official position. It is merely as a Canadian subject of Her Majesty that I make the request, and, as such, I feel we in Canada desire to think that we enjoy privileges, and have interests and rights in common with our fellow-subjects in Australia. While I venture to speak for my countrymen on the subject of this communication, and there are substantial reasons why I should do so, it is not without hesitation that I assume the self-imposed duty; but all hesitation must be set aside in view of the words of Your Excellency in bidding farewell a few weeks back at Hopetoun House in Scotland: "This is no time for any one to hang back when he can serve the Empire. Some can serve as soldiers, and right well have many done so during the past twelve months, others can serve in other capacities."

I appeal then to your Excellency in this spirit, satisfied that there are none so humble who cannot do faithful service. I appeal to Your Excellency under the firm conviction which has been forced on me that the subject of this communication demands immediate and earnest attention. I venture strenuously and respectfully to urge that it be one of the first matters brought to the consideration of your Government.

In Canada not less than in Australia we have an abiding desire to serve the Empire. Soon after Canadians embarked in the constitutional career in which the Australian people are about to enter, they undertook a work of imperial magnitude—the establishment of a telegraph and railway across the continent of North America. Long before the undertaking was completed it became apparent that the electric wire on reaching the Pacific from the East should be extended across the Western ocean. The first proposal to connect Canada with Australia by a trans-Pacific electric cable was published in returns relating to the Canadian Pacific Railway laid before Parliament in 1880. From that date until the present the Canadian parliamentary records give evidence that the project has always been kept prominently in view.

It has fallen to my lot during these twenty years, unceasingly to take more or less active interest in the telegraphic connection of Australia with the mother country by way of Canada. The evidence shows that it has been a long chapter of difficulties and disappointments, that a series of obstructions raised by strong opposing influences have been encountered, but that owing to unrelaxed, persistent efforts and the steady adhesion of friends of the enterprise they have one by one been overcome. The dominant reason for desiring to see every obstacle removed and the connection by telegraph effected by the Canadian route is explained by the vitally important fact, that the Canadian route is absolutely the only route by which the globe may be girdled by a series of all-British cables. Prolonged delays have been caused, but at length success is assured. An arrangement has now been reached under which the several governments immediately concerned shall without further loss of time, establish a Pacific cable as a state undertaking. The first part of the problem may therefore be regarded as solved, and the way is opened for entering fully into the consideration of the main proposal, viz: The establishment of a complete system of inter-imperial cables, which will put each part of the realm of Her Majesty in touch with every other part; the whole under state control, so that it can be utilized for the highest good of the Empire.

At the close of the nineteenth century it is impossible to form a narrow conception of the British Empire. It has long since ceased to be confined to the group of islands on the West coast of Europe. The Empire has undergone an extraordinary expansion, and now embraces vast territories in the four quarters of the globe. The subjects of the Queen are in possession of an immense extent of the earth's surface. The European home of the British people occupies but a fraction over one per cent of the superficial area of the whole Empire.

The great Ruler of the Kingdoms of the world has brought many lands under one sovereignty. He has granted to our Queen length of days, and placed Her Majesty over great multitudes of the human

race, comprising various nations and kindreds and peoples and tongues. We may regard this as evidence of beneficent design, and we are called upon as human agencies to take every means at our disposal to perfect the union of the mother of nations with the daughter of states, in order that, united, they may fulfil their higher destiny.

The countries occupied by the family of British nations are widely sundered geographically; their shores are washed by the great oceans, although for purposes of commerce, inter-communication is effected by fleets of steamships and sailing vessels, more adequate means of intercourse is needed. For general security, for great state purposes, no less than for the operations of trade and for ordinary social requirements, all the different parts of this widely scattered empire demand the freest use of the most perfect means of communication known to us.

We are familiar with the electric telegraph and its employment by land and sea. This marvellous agency is at our command, and it only requires to be properly applied, in order that it may best serve the highest interests of the people of the empire. Already it is employed in part, but as at present established and administered it is open to grave objections. It is wanting in essentials to our daily needs, and we are debarred from enjoying all the advantages which if properly applied, it can confer.

There are lines of telegraph established across parts of Europe, Africa and Asia, connecting Australia with the mother country, but these lines at certain points pass through foreign territories or touch foreign ports. At many places on their way they traverse shallow seas in proximity to foreign states, where they are liable at a critical moment to speedy interruption. Moreover, these telegraph lines are owned and controlled by private companies, and charges are exacted for the transmission of messages which are felt by all to be exorbitant, and by most people absolute prohibitory.

In my letter to Mr. Chamberlain of October 28, 1898, a revised copy of which is appended, I have set forth the outlines of a scheme of arrangement for cables and land telegraphs by which the most wonderful product of science of the age may be adapted to the peculiar conditions of our empire. The proposal is to establish electric cables to and from each British possession: these cables to be connected with the local land lines in Canada, Australia, South Africa, India and elsewhere; in this manner linking together the whole empire by a chain of telegraphs without touching the territory of other nations, at the same time avoiding shallow waters adjacent thereto. Moreover, it is designed that the whole system of telegraphs, by land as well as by sea, be brought under state control, in order that the fullest benefit to the British people everywhere, and to the empire, be attained.

In my letter to Mr. Chamberlain, a peculiarity of the electric

telegraph of far reaching importance is pointed out. It is a peculiarity which, however, cannot be turned to public advantage so long as the cables of the empire remain in the hands of private companies. The cost of sending a message by telegraph is not, as is generally supposed, governed by distance. It is true that the companies charge according to distance; but this is simply an expedient for obtaining from the telegraphing public larger profits. As a matter of fact, there is practically no more current outlay incurred in transmitting long than in transmitting short distance messages. It may be contrary to practice, it may not agree with preconceived ideas, but it is a fact nevertheless, that there is no known means by which communications can be sent at less actual cost than by telegraph. A mail or letter cannot be conveyed by railway or ocean steamer without expenditure on coal, machinery, oil, wages, and other things, to keep the train or ship in motion. The expenditure is constant for every hour, and continuous for every mile. The circumstances are entirely different in the case of the telegraph; when once established, equipped with instruments and manned by operators, messages may be transmitted one hundred or one thousand miles, with as much ease and at no greater actual cost than one mile.

This remarkable anomaly added to the equally remarkable, although better known fact, that transmissions by the electric wire are instantaneous, point to a system of state-owned cables and telegraphs as the ideal means of communication for an empire under such conditions as ours. If it be the case, and it is indisputable, that long-distance messages can be sent at no more actual working outlay than short-distance messages we have happily the means at our command which will greatly tend to unify and consolidate this widely-scattered empire, provided we have the wisdom and forethought to bring it into use. If the principle of state-ownership of cables generally be carried into effect as suggested, I do not hesitate to state my belief that the day is not far removed when oversea messages will be sent from any one British possession to any other, whatever the distance, at the uniform charge, first of one shilling, and eventually of sixpence a word.

I have always held a Pacific cable to be the initial link in a great chain of globe-encircling imperial telegraphs. The mere advocacy of the Pacific cable has already benefited Australia by lowering charges levied on messages fully fifty per cent, and any accountant can estimate the enormous money value of this benefit by the saving which has accrued during the past ten years. I do not doubt that the advocacy of the Imperial system will have a similar effect on the policy of the companies in still further reducing charges, but any such reduction will be incomparably less important than the advantages to result from placing the cables and telegraphs of the empire under state control. At present it is recognized that the empire

is inadequately provided with the means of telegraphic communication, that commerce is unduly taxed in consequence, and that an embargo is placed on the free intercourse of the British people. The circumstances of to-day demand multiplied facilities for sending telegrams from any one part to any other part of the empire at greatly reduced charges, in order to widen the use of telegraphy to all classes of the community. With an imperial chain of cables established, incalculable advantages would follow, and Her Majesty's subjects, in whatever part of the world they may be situated, could interchange communications with the greatest possible ease and the greatest possible economy.

Some words may with propriety be added with respect to the position of Canada in the matter. It will be borne in mind that it is owing to the unparalleled expansion of the empire and the resultant circumstances that some organization is absolutely needed to secure unfettered intercourse, and that in this respect the subject concerns Canada in common with Australia and all other parts of His Majesty's wide domain. There is abundant evidence to show that in Canada we have common interests, common sentiments, common aspirations, and common sympathies with our kindred in Australia. Have we not, during the past year, sent our bravest to fight a common foe; and have not our sons fallen on the same field and been laid in a common grave? Before these lines reach Australia the world will have revolved into another year. At this date we in Canada appear to be standing in the old century gazing across the deep into the dawn of the new. We are distant spectators, yet intensely interested in the starting of the constitutional machinery of a sister nation to dominate for all time in another quarter of the globe. We recognize and welcome the approaching great historical occasion as an epoch to denote the steady evolution of an unique Empire of many commonwealths.

It will be apparent from the preceding remarks that a complete system of State-owned telegraphs encircling the globe would in no small degree contribute to the consolidation of the great Oceanic Empire. It will further be obvious that owing to the position of Australia in the southern seas and her comparative isolation from other parts of the world, still more by reason of the highly important place she is destined to fill among the nations, that it would be fitting to signalize the birth of the new commonwealth by initiating a comprehensive system of cheap and speedy communications of permanent advantage to the whole British people.

Naturally it is felt that the initiative must be taken by Australia. I trust, therefore, that Your Excellency's government will see the way clear to take such action as may be expedient.

I have the honour, etc., etc.,

SANDFORD-FLEMING.

A STATE-OWNED TELEGRAPH SERVICE GIRDLING THE GLOBE

*Letter to the Hon. Wm. Mulock, Postmaster General of Canada,
by Sir Sandford Fleming. Jan 1, 1901.*

OTTAWA, JANUARY 1, 1901.

To the Honourable WILLIAM MULOCK,
Postmaster General.

SIR :

On the opening of the new year, I beg leave to submit the following remarks on a subject connected with your department. I believe the views expressed will meet with your sympathy and the sympathy of the government, as the subject is of great interest not only to the people of Canada, but to all other British people.

The change of the century is a peculiarly striking epoch to Her Majesty's subjects throughout the world when regarded as coincident with a turning-point in the history of the empire. To-day, another British nation enters on its constitutional career, to dominate in another quarter of the globe, and it seems to me that this is an opportune moment to consider a subject which affects Canada in common with Australia.

Yesterday Her Majesty's Home government, with the governments of Canada, New South Wales, Victoria, Queensland and New Zealand, completed a long delayed arrangement, by jointly contracting for the establishment of the Pacific cable. This act of co-operation involves the adoption of an entirely new principle in connection with ocean cables, that is to say joint state-ownership. This principle was first mooted in a report on the progress of the Canadian Pacific Railway laid before Parliament in 1880. It was proposed by the Canadian delegates at the Colonial Conference of 1887, again at the Conference of 1894, and ever since these conferences, in season and out of season, it has been strenuously advocated. It was recommended by the Imperial Cable Committee in their report of 1897. At length, the principle has been adopted, and its adoption is in my judgment of far reaching importance. If closely followed up, I am satisfied that the Pacific cable, established as now determined, will prove to be the harbinger of a complete system of state-owned telegraphs, by land and sea, ramifying throughout the whole British Empire.

At one time, the Empire was limited to the British Islands in Europe, known as the United Kingdom, but from various causes the flag now flies over vast territories in the four quarters of the globe. As a matter of exact knowledge, the United Kingdom occupies but a trifle more than one per cent. of the whole superficial area under Her Majesty's rule.

An entirely new empire, consisting of many nations, is steadily being evolved, and we cannot fail to recognize the vital importance of providing the best possible means of bringing each member of the British family of nations into the closest possible contact with all other members. But as wide seas and oceans intervene, the desired end can only be accomplished by means of the electric wire.

Electric cables have, to some extent, been already employed for a number of years, and they have served a provisional purpose, but they are now wholly inadequate. In the progress of events, since these cables were first established a quarter of a century ago, in some instances, circumstances have altered, new conditions have arisen, and new needs have been developed, demanding modification and change. The existing lines of telegraph, between distant portions of the empire, pass in part through foreign countries or traverse shallow seas in proximity thereto, where, at a critical moment, they are liable to speedy interruption. Moreover, these lines have been established by private companies who exact oppressive rates. Not a few Canadians are by painful experience during the past year familiar with the extortionate charges on messages between the Dominion and South Africa. The companies, too, not content with having long received heavy government subsidies and having been rewarded for their enterprise by enormous profits, have, by force of a combination, created a powerful monopoly detrimental to the public interests. Complaints are frequent and well founded. In the *Times* of November 14, 1900, there are letters from Sir Edward Sassoon, M.P., and Lord George Hamilton, Secretary for India, on the telegraph rates between India and Europe, which corroborate the facts here stated. In one of these letters the effect of the combination is referred to as 'medieval thralldom.' The allied companies have taken every means to strengthen their monopoly, and since the Colonial Conference of 1887, have left nothing undone to defeat the project of a Pacific cable. The friends of the Pacific cable have, however, never relaxed their efforts on its behalf, and one reason above all others why they have persisted against adverse influences and patiently struggled to overcome every obstacle, is the vitally important fact, that the Canadian route between England and Australia is absolutely the only route by which the globe may be girdled by an all-British chain of telegraphs.

It is well known that it has fallen to my lot for many years to take an active interest in a Pan-Britannic System of Telegraph cables. Last month, I addressed the Governor General of the new Commonwealth of Australia on the subject, and specially directed His Excellency's attention to a striking peculiarity of the electric telegraph, which gives it very great advantages over the post as a means of communication between places on the surface of the Globe, the most separated by distance. I pointed out, that while the cost of carrying letters as well as the time consumed in conveying them is

in proportion to distance, in the case of the telegraph it is entirely different. That telegraph messages may be sent any distance without appreciable expenditure of time or current outlay. That with a telegraph established and equipped and maintenance provided for, the actual working cost of sending a message 1,000 miles is no greater than in sending it one mile. Such being the case, we have in the electric wire, a means of communication which may be employed to unify and consolidate the widely scattered portions of the Empire. I further pointed out that it was impossible to turn these extraordinary facts to public advantage so long as the cables and telegraphs remained in the control of a combination of private companies.

In the determination to establish a trans-Pacific Cable from Canada to Australia, the first essential step is now taken. It should be followed by state-cables from Australia across the Indian ocean to India and to Africa, thence through the Atlantic, to the West Indies and to England, as set forth in my letter to Mr. Chamberlain of October 28, 1898, and in other documents made public. With our whole telegraph system nationalized as suggested, I do not hesitate to say that messages will be transmitted to and from the most distant British possessions at one-eighth or one-tenth the rates now levied by the companies.

A single word in conclusion. Of late, we have witnessed great events occurring in rapid succession, and the evolution of the Empire making steady progress. To-day, we stand at the opening of a new chapter in our history. If it has been decreed by a wise Providence that there shall be a galaxy of nations under one sovereign, so aptly indicated by the Prime Minister, Sir Wilfrid Laurier, we have indeed a high purpose before us, and we must be true to our duty and our destiny. The subjects of the Queen must see to it that the rivets of a gigantic monopoly are loosened. There must be no isolation or partial isolation of any of our sister states. British subjects in Canada, in Australia, in New Zealand, in India, in Africa, as well as in the mother country must unite in securing complete emancipation from the grasp of the great 'cable combine.' Thirty years ago it became expedient for parliament to expropriate the then existing lines and nationalize the telegraph service of the United Kingdom. Experience has proved the wisdom of that policy and furnished irrefragable reasons for its general application.

At the threshold of the twentieth century, high imperial interests demand the cheapest possible telegraph transmission, and the greatest possible freedom of intercourse between all the subjects of Her Majesty wherever they may be domiciled around the globe. I respectfully submit therefore, that action cannot be taken a day too soon to nationalize our telegraph system by land and sea throughout the whole empire.

I have the honour, etc.,

SANDFORD FLEMING.

PROPOSAL TO NATIONALIZE THE TELEGRAPH SERVICE OF THE EMPIRE.

FROM THE PROCEEDINGS OF THE BRITISH EMPIRE LEAGUE IN CANADA.

At the Annual Meeting of the League, February 13th, 1901, the President, Lieut.-Col. Denison, received the following letter from Sir Sandford Fleming:—

OTTAWA, FEBRUARY 13TH, 1901.

I much regret that owing to a long-standing engagement in Kingston I shall be unable to be present at the annual meeting on the 13th inst. I hoped to have had an opportunity of bringing to the further consideration of members a subject which has already engaged the attention of the League. I ask permission to submit some explanations in this form.

STATE-OWNED OCEAN CABLES.

Those who were present at the last annual meeting will remember that an animated discussion took place, and the opinion was affirmed with the greatest unanimity, that a complete system of State-owned ocean cables, touching the British possessions throughout the globe, is a project of the first importance. The following motion was formally submitted by me, seconded by Sir Charles Tupper, and unanimously adopted:—

"1. That the home and colonial Governments should, as a matter of policy, recognize the principle of State control of all British cables, and apply the principle as opportunity offers, and as speedily as circumstances will admit.

"2. That the Pacific cable should be at once completed as the initial undertaking in such an Imperial system of cables as that indicated.

"3. That in all arrangements for connecting by telegraph the possessions of Her Majesty in any part of the globe, provision be made for ultimate State ownership.

"4. That in permitting private companies to lay a cable to or from any British possession, landing privileges be granted only on the condition that Her Majesty may at any time assume possession of the cable on specified terms."

These resolutions were sent to the League in England, and means were taken to bring them to the attention of the several Governments concerned. It will be remembered that several of the Canadian

Ministers were present at the annual meeting, and took part in the discussions.

A TURNING POINT REACHED.

It is satisfactory to know that the action then taken by the League has had its influence, and that a turning point in the history of the great project was soon afterwards reached. Before last year closed a contract was entered into for the construction of the Pacific cable by the Home Government in conjunction with the Governments of New South Wales, Victoria, Queensland, New Zealand and Canada. Thus, after prolonged and vexatious delays caused by a combination of hostile companies, the first essential step to nationalize the telegraph service of the empire has been taken. We may regard this outcome of the long struggle to secure the establishment of the Pacific cable as an illustration of the fact that public opinion responds slowly and yet surely to a movement in favour of reform, if the reform be founded on public needs.

It is now coming to be recognized that it is of vital importance to bring the British people on all parts of the surface of the globe within telegraph touch, and to provide them with the means of intercourse, freed from such oppressive charges as have hitherto been imposed.

EFFECT OF NATIONALIZATION.

In my open letters which have been published in England, Canada and Australia, addressed to the Right Hon. Joseph Chamberlain, the Right Hon. Lord Hopetoun and the Hon. Wm. Mulock, it is pointed out that by nationalizing our telegraph service by land and sea the charges on messages to and from the most distant parts of the Empire can be reduced to one-eighth or one-tenth the rates at present exacted. This statement has been criticized, and I feel called upon to submit some explanations respecting it.

In the letters referred to, I have laid great stress on a remarkable peculiarity of the electric telegraph, viz., that distance does not appreciably add to the cost of operating, and that there is practically no greater outlay incurred in transmitting long than in transmitting short distance messages. While postal matter cannot be conveyed by railway or ocean steamer without the consumption of fuel and much other expenditure to keep the train or steamer in motion, there is no similar expenditure in sending telegraph messages. In the one case the expenditure is constant for every hour and continuous for every mile, but in the other it is entirely different. With a telegraph properly established, equipped with instruments and manned by operators, messages may be transmitted one hundred or one thousand miles with as much ease and at no greater cost than at one mile. There is, in fact, no known means, indeed I may add no conceivable means, by which communications may be sent any distance, however great, at less actual cost than by electric telegraph.

CRITICISMS ANSWERED.

The only exception which has been taken to these views may be presented in the words of a correspondent:—

“As it is acknowledged that a cable is only good for so many years, ample provision must be made, averaged over the whole line, for the cost of renewals at stated periods. Then, again, breaks in cables frequently occur, and from these causes the cost of maintenance would, of course, be more over 1,000 miles than over 100 miles.

My answer is: We are safe in assuming that a cable will not always remain in a serviceable condition without repairs and renewals; its life is not so limited, however, as at one time supposed. In fact, the actual life of a cable is unknown. Modern cables seldom break. Once properly manufactured and properly laid the cables of to-day are not to be compared in this respect with the first laid cables. The breaking of a cable is coming to be regarded as a preventable evil, and it is believed that many of the cables now being submerged, in deep water at least, will last for an indefinite period. Still, it is no doubt wise and prudent to provide for the perpetual maintenance of cables, and this, I understand, is being done in the case of the Pacific cable.

The criticism raises a side issue. It will be borne in mind that my comparison was between the cost of “operating” a postal service and the cost of “operating” a telegraph service. I hold to the absolute accuracy of my statement, and I would now merely add that if there be not entire immunity from breaks in the case of cables, neither is there from wrecks in the case of steamers. There is this difference, however; a cable may be repaired at no great cost, while in the case of a steamer all may be lost. A railway is not quite the same as a steamer; it cannot suddenly become a total wreck, but the rails, sleepers, bridges, culverts, etc., require continually to be repaired or renewed, and to keep a railway in efficient condition an army of workmen is needed. This, however, is quite apart from the cost of operating, which consists of many expenses, embracing fuel, train expenses, repairs of rolling stock, etc. I am quite confident that the more the question is looked into the accuracy of my statement will be brought out in stronger and stronger light. My contention is that while the operating cost of a postal service by sea or land increases with every mile the cost of transmitting messages by telegraph is not appreciably affected by distance. If this view be correct, and I contend it is uncontroversial, does it not follow that the principle of “universal penny postage,” that is to say, a low uniform rate for all distances, is peculiarly applicable to a national telegraph service reaching out to every part of our widely spread Empire?

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COST OF TRANSMISSION.

I have learned at the telegraph office in this city that in the transmission of messages from Ottawa to India, South Africa, Victoria, New South Wales, Queensland, New Zealand and Hong Kong, the charges for transmission range from \$1.23 (five shillings) to \$1.60 (six shillings and sixpence) per word, each word in address and signature being charged at the same rate. Such being the case, it is indisputable that a reduction in these charges to 12½ cents (sixpence) a word, or even to 25 cents (one shilling) a word, would greatly stimulate commerce, and in many ways prove an immense advantage to the British people. One effect would be to increase enormously the number of messages transmitted, so that instead of the cables remaining idle for certain periods of the day the operators would be kept well occupied. Of course the rule would be for all ordinary messages to be transmitted in their proper turn, and as a consequence many messages would frequently be thrown into a slack period of the 24 hours, thus causing delay in transmission which in the case of urgent messages would be inconvenient.

AS TO URGENT MESSAGES.

One of the first matters to be considered will be how best to deal with urgent messages, for occasions will always arise when demands will be made for instant transmission. To my mind, this difficulty may best be met by following the precedent adopted in the postal service of Canada, with respect to the speedy delivery of letters. Two years ago the Postmaster-General introduced an admirable system for the special delivery of urgent letters. The ordinary letter postage is two cents, but the addition of a special delivery stamp costing ten cents, making a total prepayment of twelve cents, secures the prompt delivery of a letter directly on the arrival of a mail train in any of the several cities of the Dominion. These special delivery stamps are constantly used, and the plan is felt to be a great public benefit. By the prepayment of six times the ordinary postage, a letter obtains a preference in delivery. The same principle can be applied to the State telegraph service. Let us assume that the uniform charge for ordinary messages be twelve and one-half cents (six-pence) per word, and that the same ratio of increase as in Canada be charged for urgent messages. Such messages would obtain a preference in transmission on a prepayment of 75 cents (three shillings) per word. And it may be remarked that this rate is considerably within the present average charge for ordinary messages. It will be understood that these remarks are submitted merely to illustrate the manner in which the principle so acceptably introduced in the Canadian postal service might be applied to the Pan-Britannic telegraph service.

PREFERENCE MESSAGES.

The charge for preference messages would of course have to be determined after a full consideration of all the circumstances; it might indeed under some circumstances be ten times the rate of ordinary messages, but, whatever the charge, it will be obvious that among the many advantages to result from the adoption of the principle suggested there would be a very large augmentation of the general revenue from this source.

It is a matter of the first importance to make intercourse as free as possible to the mass of the British people, by removing all preventable tax on their communications. The aim is to give all persons separated, let us say, by half the globe's circumference, the means of exchanging messages more speedily than by mail. A vast number of such persons, now deterred by high charges, would use the telegraph freely if the transmission rates were as low as contemplated, and the great bulk of them would be in no great hurry for a reply within a day or so. If the urgency of the business required a speedier reply it would be possible to obtain it by paying preference rates.

In submitting these several explanations I am satisfied that every one of my fellow-members of the League will extend to them due consideration. We all feel that the interests of British commerce no less than the cause of Imperial unity is vitally concerned in securing the greatest possible freedom of intercourse between the widely-separated subjects of His Majesty. To reach the end in view we place before us a right ideal and strive with unrelaxed efforts for its fulfilment. Our design is to bring all British people throughout the globe telegraphically into one neighbourhood in order that they may constantly maintain that sympathetic relationship so necessary to their highest interests. Our aim is to remove all monopolistic tax on free intercourse, all unnecessary toll on that marvellous gift of science, telegraphy. To accomplish these ends we must resolutely resolve to press upon the representatives of the people, in Canada, in Australia, and in the Mother Country, the urgent need to nationalize the nervous system of this great Empire.

A PAN-BRITTANIC CABLE TELEGRAPH SERVICE.

Resolutions of the British Empire League in Canada, Feb. 13th, 1901.

At the Annual Meeting of the British Empire League held at Ottawa on the 13th February, 1901, Sir Mackenzie Bowell, K.C.M.G., moved the following resolution and in doing so warmly endorsed the proposed Cable, which, he said, should be constructed exclusively within British territory. Sir Mackenzie charged that the enormous influence exercised by the Eastern Telegraph Company had successfully blocked the scheme for a long time and the same sinister influences were still at work trying to delay its accomplishment. "I think it would be to the advantage of Canada to take possession of the telegraph lines in this country as well as the telephones," said the speaker, amidst a chorus of "hear, hears." "England has done that, and the Australian colonists own not only the telegraphs, but the railways. I am sure, that State ownership is a very great advantage."

Mr. T. B. Flint seconded the resolution, and spoke in glowing terms of the commercial expansion within the empire which would result from the construction of the cable, to say nothing of the strategic advantages.

The Resolution which was unanimously concurred in was as follows:

"This meeting of the British Empire League in Canada, re-affirms the resolutions unanimously passed at the last annual meeting respecting state-owned cables, and is strongly of opinion that as a further step towards consolidating the Empire, means should be taken without delay to nationalize all cables between British possessions and all land-lines necessary to complete a Pan-Britannic telegraphic service."

"Resolved, that it be an instruction to the Executive Committee in the name of the League to memorialize Parliament on the subject of the resolution, and take such other means as may be expedient to bring the proposal to a successful issue."

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Ottawa. Board of Trade
Circular letter on
state-owned cables

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